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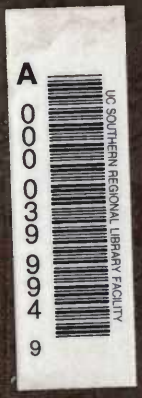

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Assignment in Drawing

1901-1902

CLEVELAND PUBLIC SCHOOLS

1901
THE BRITTON PRINTING CO.,
CLEVELAND, OHIO.

DRAWING ASSIGNMENT 1901-2.

Precise inquiry into the constitution and function of drawing shows it to be the simplest of all written languages. In fact, it is so simple, mastery of drawings necessitates the learning of so few things and these few things are so easy of comprehension and so quickly learned when properly presented, that it would be as universally self taught as seeing, hearing, walking and talking are self taught except that the human propensity to guess, to assume from appearances, and to take things for granted, prevents inquiry. The making of a drawing is only the making of lines on a flat surface; or, to state it more precisely, drawing is nothing but the location of points on a flat surface just as they are seen on another flat surface, and learning to draw is simply coming to a practical realization of this fact. This is as true of object drawing as it is of copying from the flat, as will be shown; hence it follows that the teaching of drawing is only a rectification of the point of view and a correction of the method of procedure in drawing.

The precise nature of drawing is not to be mistaken when nothing is taken for granted and only clearly unmistakable facts are accepted; and when the precise nature of drawing is understood, effort to draw cannot be misdirected; in which case rapid improvement in execution and the prompt acquisition of skill is not only certain, but it cannot be avoided. The result is no less sure than that day shall follow night.

The propensity to assume from appearances, and the consequent failure to inquire, constitues the only obstacle there is in the way of learning to draw, and to cause a reversal of this condition, or to cause inquiry to take the place of false assumption it is only necessary to make the advantage of inquiry manifest to the pupil. All that is necessary to accomplish this is familiarization. The pupil must be made familiar with the successful achievement of others as displayed in the works of the great masters of art, he must be made familiar with the precise nature of accuracy,

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and he must be made familiar with the fundamental principles upon which accuracy and excellence depend.

Familiarity with the works of great masters in art, so essential to refinement of judgment, breadth of view and catholicity of spirit, is a never ending growth, and for this reason in the following assignment it is given a constantly increasing importance, beginning in the first grade and continuing to the highest.

Accuracy in drawing is so easily secured, and the process by which it is secured is so exceedingly simply, so comprehensible, so capable of speedy mastery, and so essential to the successful application of the principle of design that in the following assignment, familiarity with it is made the principal aim of instruction in the first three grades of school.

The principles of design as explained and demonstrated by Dr. Denman Waldo Rose of Harvard University are wonderfully simple and easy to be understood; but since the most successful study of these principles requires at least some comprehension of the nature of drawing, as their application necessitates some skill in its use, the specific attempt to develop familiarity with them is deferred to the fourth grade, but constitutes an important part of the instruction in each succeeding grade from that to the highest.

The method of developing the desired familiarity with the work of great masters in art consists in placing reproductions of important pictures, or photographs of important buildings and other works of art before the pupil and informally discussing the story they tell, their particular merits, the phase or condition of art development which they illustrate, the influences that contributed to the determination of their quality or character, the life, character and training of the artists who produced them, etc., etc. (For help in this see "Art Topics," by Charles S. Farrer, 79 Dearborn St., Chicago, Ill.

The method of familiarizing the pupil with the precise nature of accuracy and how it is secured, as well as the method of familiarizing the pupil with the precise nature of excellence, or the principles of design upon the application of which excellence depends, is the same. It consists in demonstrations and illustrations of specific requirements, and in applications of principles on the black-board by the teacher, together with exercises by the pupil in meeting requirements, making applications or proving principles in the execution of drawings according to specifications.

DIVISION OF TIME.

The time allowed for drawing as given in the course of study will be divided as follows:

First Grade. One-half hour per week, picture study; balance of time familiarization with the process of reproducing quadruled subjects.

Second Grade. One-half hour per week, picture study; balance of time familiarization with the process of object drawing, or the process of reproducing the silhouette shapes of objects as seen against a quadruled background.

Third Grade. One-half hour per week, picture study; balance of time familiarization with the process of drawing, or with the process and the advantage of separately determining the horizontal and vertical relations of points.

Fourth to Eighth Grade. One-half hour per week, picture study; balance of time divided between familiarization with the principles of design and exercises in drawing (see third grade) with a view to perfecting the skill in the use of the process of accurate execution.

Below will be found a statement of the requirements it is expected the pupils in each grade will acquire the ability to meet, together with explanations and suggestions.

In order to secure the variety of work necessary to the maintenance of interest and spontaneity there will be the usual monthly assignments and special drawings.

Regular teachers' meetings at which the work assigned for each month will be discussed and explained will be held in room 16 Rockwell building, as follows:

1st Grade. First Saturday in each school month at 9:15.
2d Grade. First Saturday in each school month at 10:45.
3d Grade. Second Saturday in each school month at 9:15.
4th Grade. Second Saturday in each school month at 10:45.
5th Grade. Third Saturday in each school month at 9:15.
6th Grade. Third Saturday in each school month at 10:45.
7th Grade. Fourth Saturday in each school month at 9:15.
8th Grade. Fourth Saturday in each school month at 10:45.

All candidates for positions as teachers in the Cleveland Public Schools, not graduates of the Cleveland Normal School,

are required to meet regularly every Saturday at 10 o'clock for instruction in drawing. No one will be excused from attendance upon these meetings or will be given an appointment as a teacher in the Cleveland Public Schools until the drawing master is satisfied that the candidate is master of the process of accurate drawing. (See requirements of first three grades below.)

REQUIREMENTS.

FIRST GRADE.

It is required that the pupils in this grade shall be familiar with the pictures studied, and so familiar with the process of reproducing quadruled subjects as to be able, on quadruled lines such as Fig. 1, to reproduce any figure at least as complicated as Fig. 2, and do it intelligently, promptly and accurately.

The capability to meet this requirement depends upon three things, as follows:

1st. A complete familiarity with the uses of the squares formed by the intersection of the horizontal and vertical lines and the signification of the lettering and numbering of the spaces between these lines.

2nd. A complete appreciation of the fact that corresponding salient points should be in squares of the same letter and number in both the reproduction and the subject figure.

3rd. The completest practicable appreciation of the fact

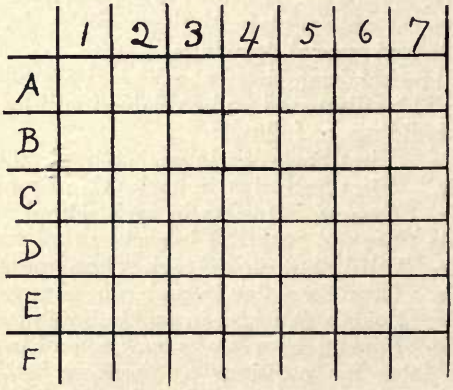


Fig. 1.

that accuracy requires that corresponding salient points shall occupy precisely similar positions in their respective squares. These ends are to be gained only by exercise, and they are to be expeditiously gained only by good engineering on the part of the teacher, consisting in the employment of well selected and interesting subject-matter, the proper adaptation of suitable methods of procedure, and such general management as will quicken and maintain the most healthful desire on the part of the pupil to meet all essential requirements.

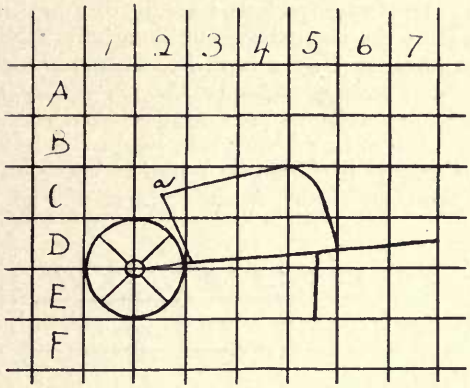


Fig. 2.

Method of developing the necessary familiarity.—The details of the process calculated to forward the development of familiarity with the uses of the squares and the signification of the lettering and numbering must vary with the age and stage of development of the pupil. The suggestions here made are designed to meet the requirements in cases where the pupils do not know the letters of the alphabet and cannot read the numbers, and they are subject to any change that the conditions may require.

The teacher prepares for the lesson by making two sets of three inch squares on the blackboard, lettering and numbering them as in Fig. 1, and by drawing a subject figure on one of these sets of squares as in Fig. 2. The problem is to reproduce Fig. 2 on Fig. 1, the teacher doing the work and the pupils helping her, she aiding them in this by such promptings as may be

needed to prevent dragging and delay. For example, the teacher asks, "What point in the figure shall I locate first?" and then calls upon some individual to answer. The pupil called upon is helped in all kindly ways to tell or to point to the part of Fig. 2 that he would have first located in the reproduction, as, perhaps, *a*. This being promptly settled the teacher asks, "In what letter in Fig. 2 is the point (*a*) that we are going to place?" and calls upon some individual pupil to answer, giving him all kindly assistance, promptly getting him to point to the letter or to name the letter or promptly pointing to the letter for him or telling the name of the letter for him, bearing in mind that familiarity not dexterity is the immediate end sought. When the letter that the given point in Fig. 2 is in has been named or pointed out, by some one, with or without the aid of the teacher, the next question is, "In what letter in the prepared set of lines shall we place it?" Proceed as before and when the letter has been pointed out or named it should be noted in some way so as not to need re-location, as shown in the margin of Fig. 3.

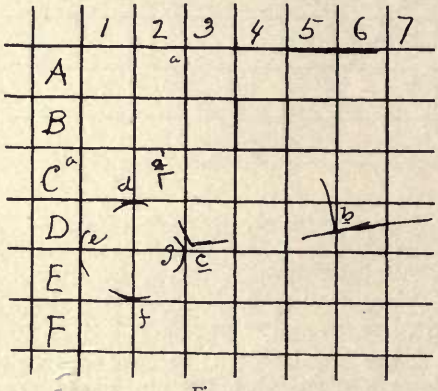


Fig. 3.

In the same way the number in Fig. 2 in which the given point (*a*) is should be pointed out or named, the number in Fig. 3 in which it should be placed, should be pointed out and named, and a note made of it in the margin.

This done, the given point in Fig. 2 is located in its proper square in Fig. 3 by the teacher. Repeat this process for six to eight points in the subject figure, proceeding promptly. These

six or eight points, when located as in Fig. 3, are disconnected and constitute a more or less rough plan requiring connection and the supply of the lines necessary to complete the reproduction. This completion of the reproduction, or the change of the plan into a drawing, the teacher executes while the pupils look on.

Erase this drawing and repeat the entire process, but no repetition should ever begin with the location of the same point as any preceding reproduction of the same subject, and nothing should be allowed to drag. Reproduce Fig. 2 three times as described above and then let the pupils try to reproduce it on ruled paper or on ruled squares scratched on their slates, and while they do this the teacher should pass among them commending, suggesting or criticising as seems best in the individual cases.

When any figure has served as the subject and been reproduced three times on the blackboard by the teacher under the direction of the pupils, and once by the pupils themselves under the oversight of the teacher, as described above, it should be laid aside indefinitely. A new figure should be then taken as the subject, and the process described above should be repeated.

A few available subjects will be found on plates I to VI, and these will suggest many others and the sources from which others may be obtained.

The method of developing a complete appreciation of the fact that at least salient points in the reproduction and in the subject figure should be located in squares of the same letter and number, is simply a matter of copying by separately determining the coordinates of salient points as a preliminary to drawing. The process of familiarizing the pupil with the method consists in providing good and interesting quadruled subjects and requiring accuracy in their reproduction to the degree that salient points shall be in their respective squares.

The method by which the completest practicable appreciation of the fact that accuracy requires corresponding points to be located in precisely similar parts of their respective squares is also a matter of copying with insistence upon precision. This requires simply the complete understanding and application of the process described above, which can be brought about only in proportion to the amount of delightful, healthful practice and exercise of this kind that is afforded the pupil.

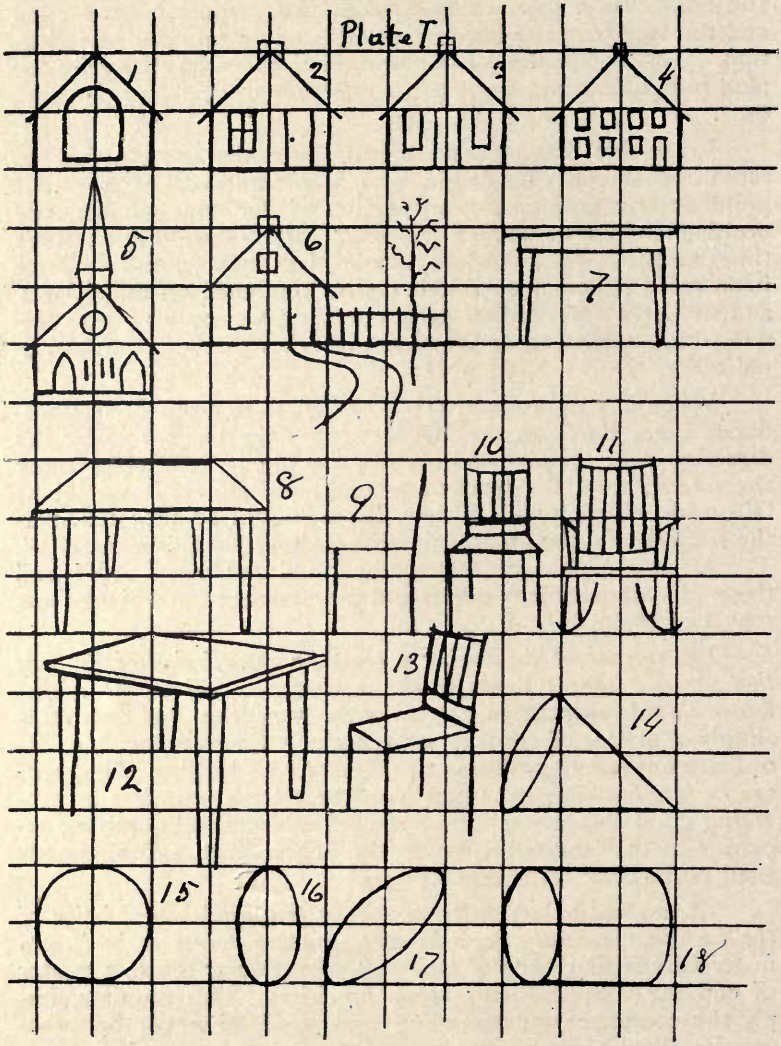


Plate I.

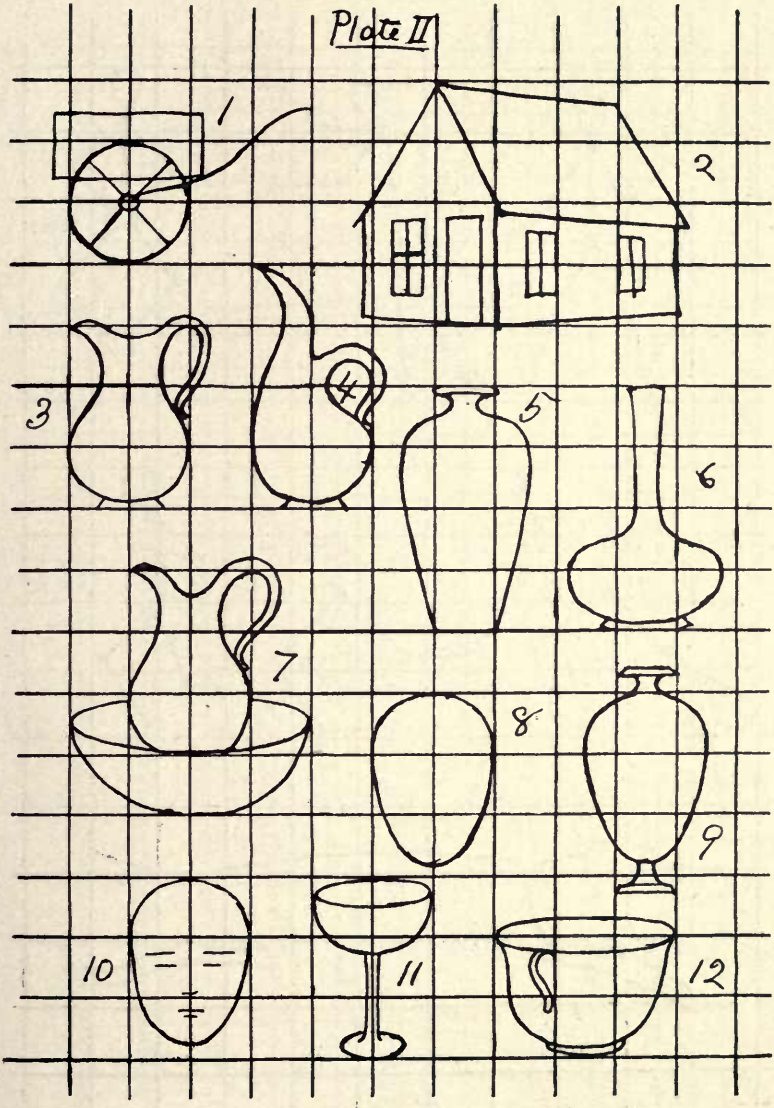
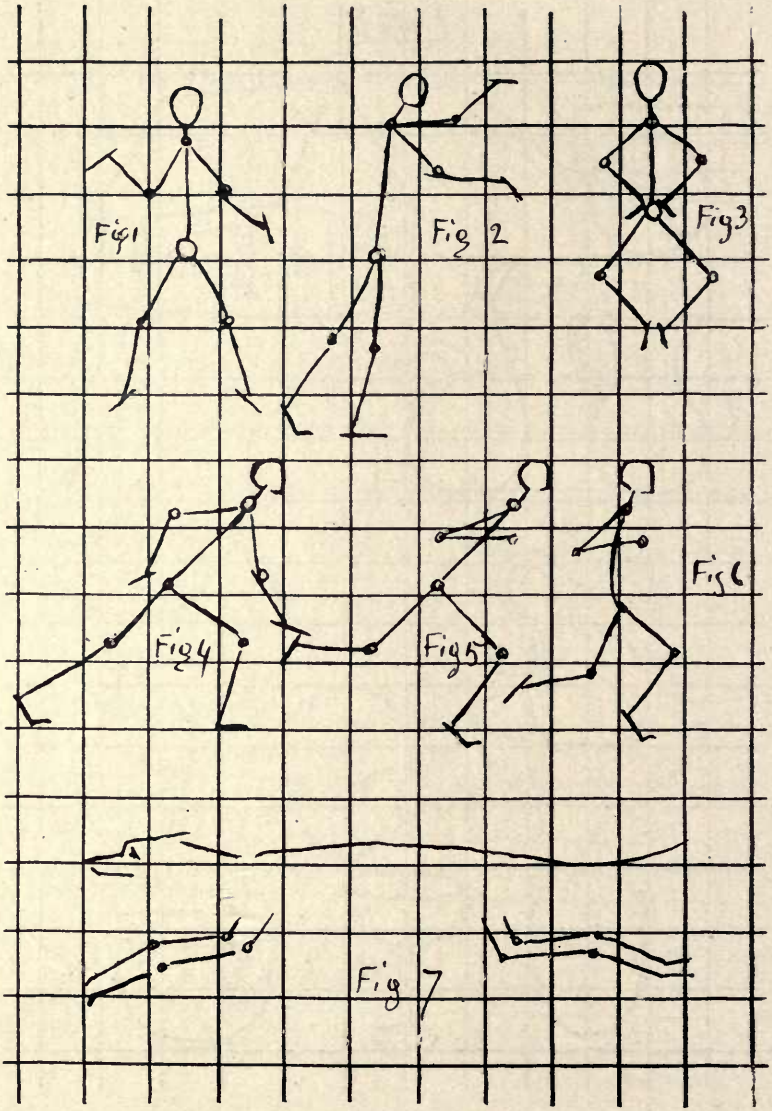


Plate II.



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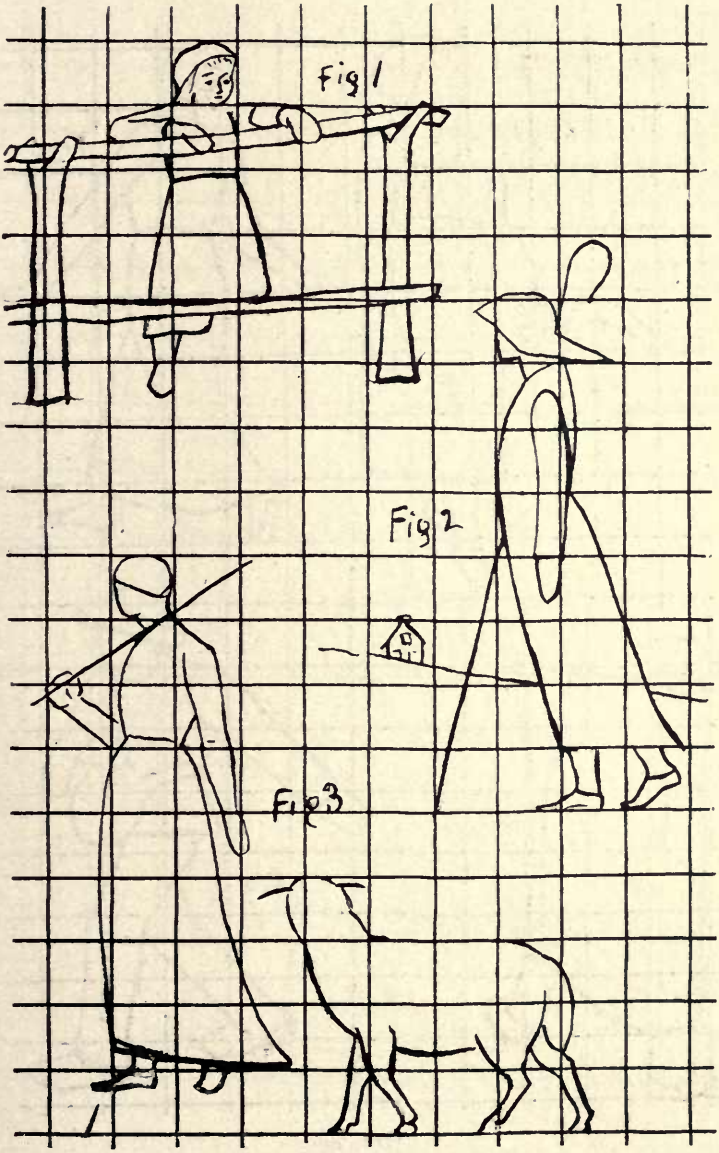

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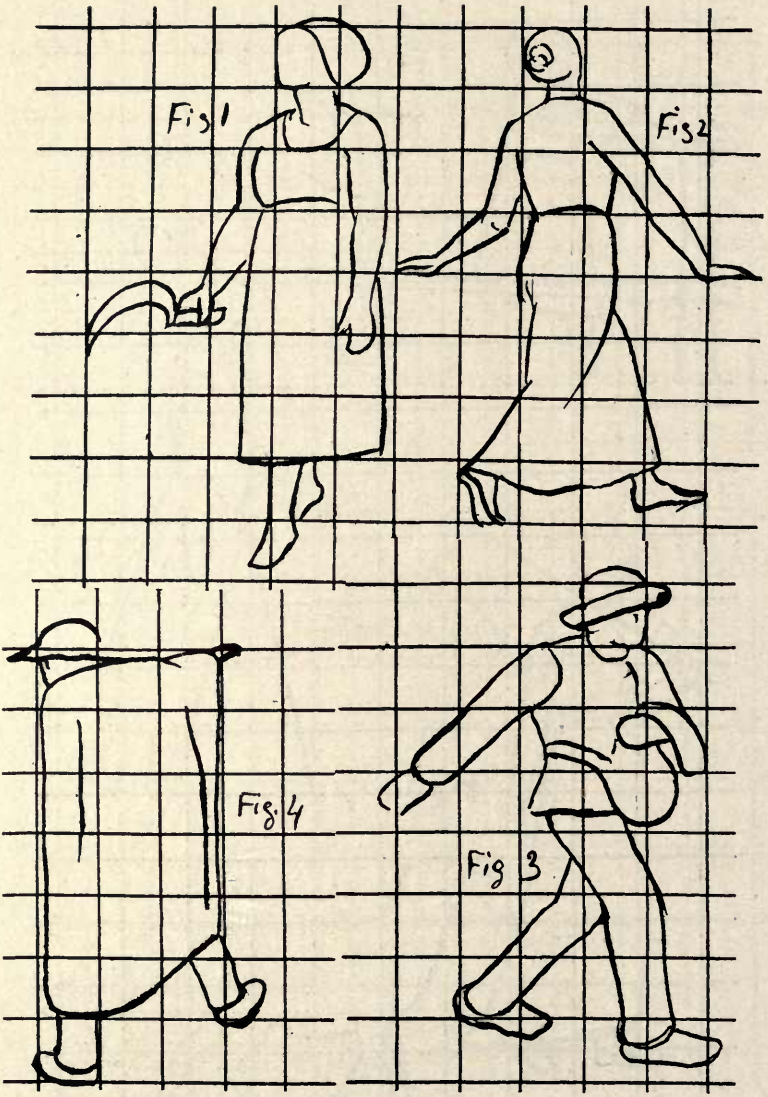

Plate V.

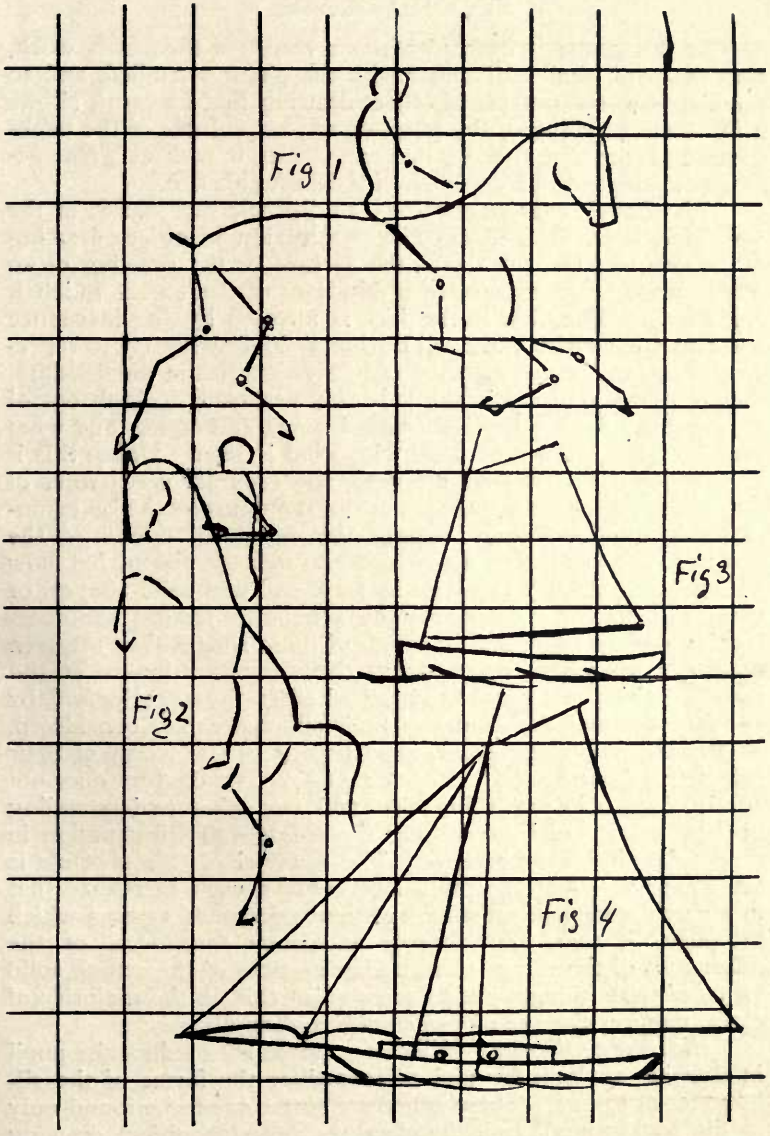

Plate VI.

SECOND GRADE.

In this grade it is required, as a result of the year's work, that the pupil shall be familiar with the pictures studied, and so familiar with the process of object drawing that his work shows a full understanding of the purpose and helpfulness of the background screen and that he uniformly uses it with as great accuracy as ought to be expected of a child of his age.

The obstacle to be overcome.—The obstacle that stands in the way of expeditious and effective instruction in object drawing is the preconceived idea that the picture or the drawing of an object must be in some way a duplicate of the object which it represents. That this is the fact is attested by the insistence and persistence with which all beginners in drawing try to represent square corners in the subject by right angles in the drawing. To see that this is a mistake it is only necessary to look out of the window, observe precisely what is seen, and understand what can and what can not be done with what is seen. Doing this it is made clear that objects are seen, and they are seen either of two ways, but never both ways at the same instant. For example, sky, hills, buildings, people, the details of buildings, the features of people, etc., are within the field of vision, but how are they seen? They are seen in their real and solid shapes, or they are seen in the shapes of their silhouettes against and overlapping one another; and in which of these shapes they are seen depends upon whether the objects themselves are looked at and their solidities are considered, or whether they are looked by and beyond, and the shapes of their silhouettes are considered. A drawing of objects is the reproduction of the forms of their silhouettes, because its surface or two-dimension nature does not admit of its being anything else, and any other understanding of what a drawing is constitutes the obstacle that instruction in object drawing must remove. The removal of this obstacle is accomplished when the pupil has been brought to realize that in object drawing he must look at the background against which the object is seen, and observe and copy the forms of the silhouettes of the things seen, taking no note of the actual, solid forms of those things; but to accomplish this, in the majority of cases, requires the use of special aids and appliances.

Aids and appliances.—What is required is to induce the pupil in drawing to look for and to reproduce the forms of the silhouettes of things. These silhouette forms are to be found only in the background, and, therefore, to make an object drawing

requires looking at the background to find them. To most easily and effectively induce the pupil to do this an artificial background particularly adapted to the finding and identifying of these silhouettes is essential. The best background for this purpose is made of green cloth six feet wide and four feet high, quad-ruled into five inch squares by vertical and horizontal lines in white (with consecutive numbers between the vertical lines at the top, and letters at the sides, between the horizontal lines) curved into an upright cylindrical surface three feet in radius and suspended from the front wall opposite the middle aisle at such a height that the bottom is three feet from the floor. (Fig. 4.)

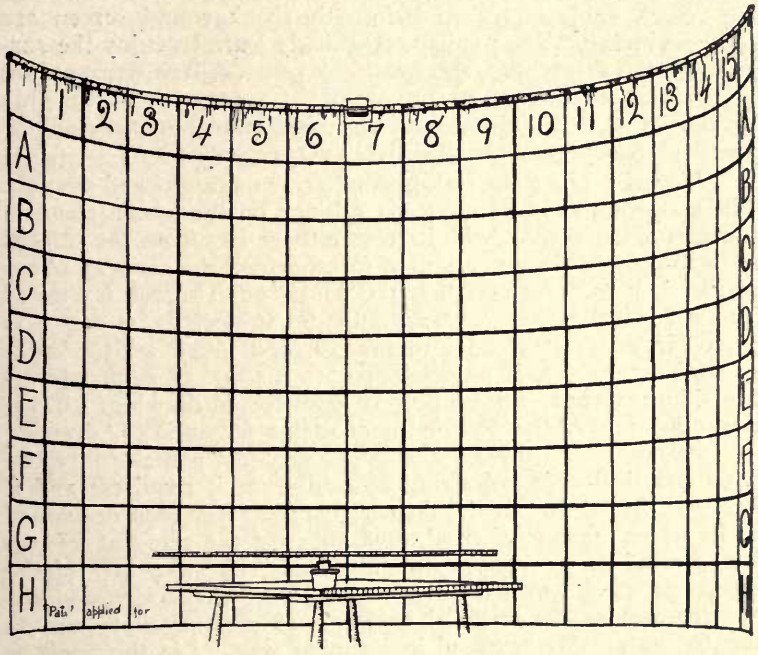

Fig. 4.

The most potent agent in the development of a clear understanding of the requirements of object drawing is foreshortening. Because of the tenacity with which most minds cling to preconceived ideas, particularly if those ideas seem to be well

founded, to bring the average mind to the right point of view in object drawing it is necessary to give it a shock. It is necessary to startle it into a realization of the fact that drawing is not the reproducion of the actual form of things by presenting cases showing the utmost possible difference between the actual three-dimension forms of things themselves and the two-dimension forms by which they would be represented in drawing. That is accomplished by submitting subjects placed before the background screen in such a way as to be greatly foreshortened, as for example, a boy lying on his back with his feet turned toward the school, a table with its top nearly on a level with the eye of the pupils and a small object, as an ink well, on its nearer edge, etc., etc. Such subjects placed before the background screen are self-convincing. The pupils very quickly learn to enjoy the surprises of foreshortening, and quickly acquire skill in representing it. It is by shocks, and in the case of the average pupil it is only by shocks, that the obstacle to the development of real skill in practical drawing can be effectively accomplished.

Method.—Hang the background screen straight and smooth. Place a group of objects, as the subject, on the model stand in the axis of the screen (with its centre three feet from the screen) so as to present the maximum of foreshortening. By way of explanation it may be said that the background screen is curved into a vertical cylindrical form and the subject to be drawn is placed in its axis in order to provide each pupil with a background screen that is perpendicular to his line of sight and afford him a means of executing an undistorted drawing. Experience has proved that by the use of such a screen in the drawing of foreshortened subjects the pupil speedily comes to realize what practical object drawing is, and what it requires; and it has been found that in the degree that skill has been developed in its use, a change of conditions, or even the removal of the background screen makes no difference. By the use of the screen the pupil learns his dependence upon the background and the removal of the artificial background only prompts him to use the natural background in a similar way. Let the pupil be provided with paper that is quadruled into half inch squares.

No two pupils, from their seats, will see the model projected against the same part of the background screen; that is, they will not see it against vertical columns on the screen of the same numbers, and for this reason the first thing for the pupil to do is to observe the numbers of the columns against which he sees the

model and to number the middle columns on his paper accordingly.

This done instruct the class to show on their papers in what squares they see the silhouettes of what they regard as the salient points of the model. Doing this is making a plan for a drawing; it is not making a drawing. While this is going on the teacher should pass among the pupils commending, suggesting or criticising as seems best in the individual cases.

When the plan has been made, let it be converted into a drawing by the connection of the different parts. In this last a good deal of liberty should be given the pupil. Vary the subject-matter as much as possible, using geometrical solids, vase forms, draperies, the human figure, etc. Repetition can be very easily overdone, but if the teacher realizes that familiarization with the process is all that is sought, and that the production of drawings is merely an incident, there will be little danger from this source, because the temptation to repeat with a view to getting better immediate productions will be almost if not wholly removed.

THIRD GRADE.

In this grade it is required as a result of the year's work, that the pupil shall be familiar with the pictures studied; and so familiar with the process and advantage of separately determining the horizontal and vertical relations of points that he habitually does so with as great accuracy as ought to be expected of a child of his age; and that the drawing book of each pupil shall be reasonably full of drawings demonstrating his familiarity with the process of drawing, both from the object as well as the flat copy.

The work of the third grade consists in the development of an increasingly complete consciousness of the fact that no point in a drawing can have more than two relations to any other point in the same drawing, that these relations may be horizontal and vertical, and that effective drawing may be insured by the definite, precise and separate determination of the horizontal and vertical relations of the salient points in a drawing before the execution of that drawing is undertaken.

The obstacle to be overcome.—The obstacle in the way of good drawing is the propensity to guess rather than to take the time and trouble to definitely determine precisely what is to be done before proceeding to do it; and the removal of this the only

real obstacle to good drawing, or the method of bringing about the discontinuance of guessing in drawing, consists in demonstrations of its disadvantages that are satisfactory and sufficient to the pupil.

The teaching of drawing is one form of trade or exchange between the teacher and the pupil. The teacher wishes to dispose or to sell to the pupil a certain desirable something and this he will succeed in doing in the degree that he brings the pupil (the buyer) to see that the thing he is asked to buy is desirable and that the price is low. He must convince the pupils that the possession of the proposed object of exchange involves an expenditure of time, effort and material that is of less value to him than that which he gets in exchange for it.

The thing which the teacher of drawing wishes the pupil to buy is skill, which is simply habitual and definite predetermination of the two relations of the points in his drawing before he proceeds to execute that drawing. This skill is a desirable possession. There is no one anywhere who would not be glad to possess it or who would not be glad to have an opportunity to buy and to pay for it. There is but one question and that is: What is the price? The price of skill in drawing is low. It is lower than the price of any other human acquisition of anything like equal value. To bring the pupil to realize this and to know how very little the possession of skill will cost him is to insure that he will learn. To do otherwise is to insure that he will not learn willingly and to make it highly probable that he will not learn at all.

With regard to drawing there are two practically universal mistakes and both are due to the same cause: to assuming from appearances. One of these mistakes is that the price of skill varies with the individual, and the other is that all people try to buy skill with the same thing. This is exactly the reverse of the truth and to realize that there are no two prices for the same degree of skill but that there is an infinitely variable medium of exchange it is only necessary to realize how many mediums of exchange are ever tried, how many have any purchasing power, and how, by adulteration, the one real medium of exchange becomes an infinite number of mediums with different purchasing powers.

Thinking of these matters it is clear that the guess and the judgment are the only mediums of exchange that are ever tried in the purchase of skill; that the guess has no purchasing power whatever; that, consequently, there is but one medium of ex-

change, which is judgment; but that as judgment is more or less adulterated with guess, and that in proportion to the amount of adulteration the purchasing power of judgment changes and practically comes to have variable powers.

Judgment in the same degree of purity and in equal quantity buys exactly the same amount and degree of skill regardless of the individual, and what is required of instruction is that it shall make this fact clear to the child. In the degree that instruction fails to do this it fails in what is most essential. What is required in the instruction in drawing in the third grade is that the facts regarding the attainment of skill in drawing and the extremely low price for which masterly skill may be procured shall be made as clear as practicable.

METHOD.

The method by which it is practicable to bring the pupil to realize the great purchasing power of judgment and the idleness of guessing, is partly demonstration and illustration by the teacher, and partly exercise by the pupil, as follows:

Demonstration.—Let the subject be any good print, as Fig. 5, and let each pupil be provided with a copy. The teacher might begin by saying, "I am going to make a plan for a drawing of this picture by Bartolommeo called 'Angel Blowing a Trumpet.' This is the space on the blackboard in which I am going to do it," and immediately on making this announcement he encloses the space on the blackboard in which he proposes to make the plan, saying: "This is my paper." "I will begin by locating point *A*. I choose this point as the first one to locate because it is nearest the middle of the whole figure and there is, therefore, less chance that I shall misjudge in locating it. I judge that it is a little below the middle of the height of the figure. I will make a mark at *a* about how high I think it should be." (Fig. 6.) Having made the mark *a*, the teacher measures the subject and then measures the plan with a view to discovering any mistake that may have been made. This constitutes the whole process; to judge one relation and to indicate the conclusion by marks, and then to measure and test with a view to discovering any error of judgment.

"I judge that *A* is nearer to the extreme left point of the subject than it is to the extreme right. I will make a vertical mark *a'* where I judge it should be." The teacher measures the subject and then the plan to discover any mistake. "I have now

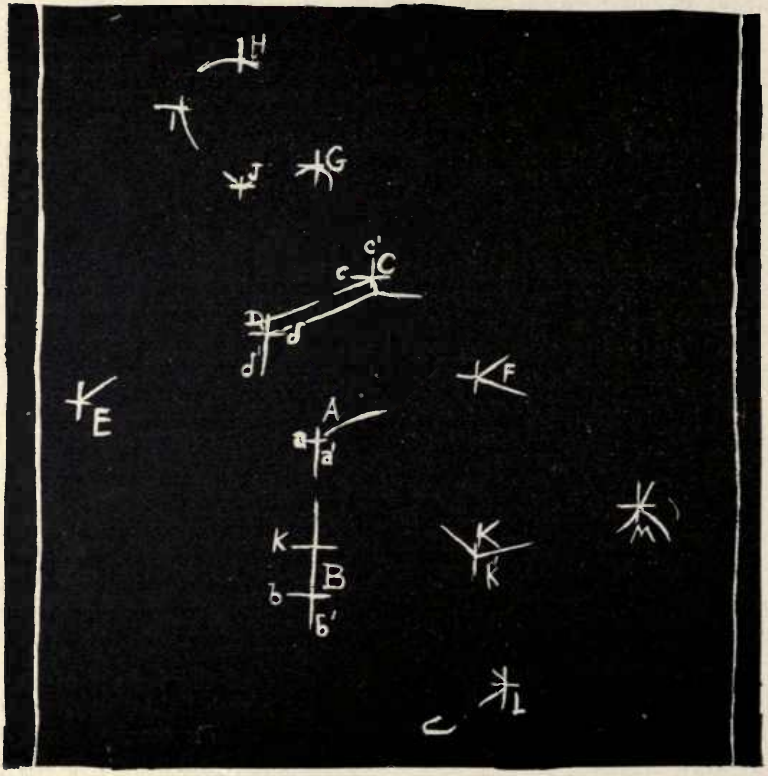

Fig. 6.

located one point of the plan I am making. What has it cost me? What was the price of the mark *a*? It was one thought. What did I pay that thought with? I paid it with a judgment, and judgment will buy more than anything else. It will buy gold, but gold cannot buy it. In the same way I bought *a'*. The price was one thought which I paid with a judgment. If the price of *a* was one thought and the price of *a'* was one thought and I paid for each with one judgment, what was the price of the point *A*? It was two thoughts and I paid the price with two judgments. It was cheaply bought because I gave a little and I got a good deal. If I had tried to buy it with a guess I should have tried to buy it with something that cannot buy anything and I should have been obliged to buy it again; that is, with a guess I should not have received anything in exchange for my thought, my time or my labor, for since one cannot guess without thinking, in guessing one pays the price but gets nothing in return.

"Two thoughts is the price of every point in every picture or drawing. Pay for those points with judgment and you get something easily and cheaply. Pay for them in anything else and they will not be yours because you pay with something which has no value and no purchasing power.

"Now I will locate the point *B*. I judge that *B* is on the same vertical line with *A*, and I will see if I am right." To do this the teacher lays a ruler on the subject so that its edge passes through both *A* and *B*, and this done he looks to see if it stands vertical or leans perceptibly to one side. "I think that is right, I will extend *a'* down to *b'*. Now how far shall I put *B* from *A*? Is the length of the thigh more or less than half the height of the figure from *A* to the level of the toes of the right foot? It is more. So I might locate *B* below the middle of the distance between *A* and the lowest point of my space on the board; but I want a little margin. I want the drawing to be a little smaller than the space in which I make it so I will locate *B* slightly above the middle between *A* and the bottom of my space and draw the mark *b* to show where I mean it to be. That will make it certain that the toe of the right foot will be above the bottom edge of the space. The price of this point *B* was two thoughts which I paid with two judgments, and I paid the judgments before I measured because in this way my judgment gets exercise and grows, while if I measured first my judgment can get no exercise and gain no strength. I will next locate *K*. Where

Fig. 5.

is it? Is it higher than *B*? Is it lower than *A*? Yes, it is both. It is higher than *B* and lower than *A*. It comes between them. Whereabouts? I judge that the sharp point at the left knee is nearer the level of *B* than it is to the level of *A*. I judge that *K* comes about opposite the point I will mark *k*. Let me see if I am right." The teacher at this point, with the aid of a piece of paper or something else, proceeds to take such measures as will expose any considerable mistake, acknowledges the mistake, if one is found, and makes the proper correction. This done, the teacher proceeds by asking, "How far is *K* from the line joining *A* and *B*? Is the distance from *A B* to *K* greater or less than *A B*? I judge that it is nearly the same. I will indicate the distance that I judge the knee should be with a mark *k'*. Now I will measure and see if I am right." The teacher proceeds to measure and corrects any error that he may find. Proceeding in this manner with the location of the salient points is demonstrating the cheapness of skill and any error that the teacher may expose in his work on the blackboard will contribute to making the cheapness and the economy of the process more self-evident.

In this way several things will be demonstrated: 1st, that the distance between the first two points located in a drawing constitute the pitch of that drawing to which all other relations must conform; 2d, that the only way to successfully make any drawing is to refer everything to the pitch, and 3d, that skill is cheap because it consists in doing something that is easily done and requires merely the repetition of the same process.

When the teacher has illustrated on the blackboard how to proceed in the economic and effective planning of the drawing of a subject, the pupils are given an opportunity to make a plan for a drawing of the same subject, taking some given horizontal or some given vertical relation between two given points as the pitch, as for example, if the subject was Fig. 5, the pitch might be either the horizontal relation between *C* and *D*, or the vertical relation between *A* and *D*, or the vertical height of the whole figure, or the horizontal width of the entire figure, or any other vertical or horizontal relation of the figure.

Making many plans for drawings of the same figure, taking as the pitch at different times different relations between different points, is an excellent thing to do but it can easily be over done. There must be variety, and making many plans of many subjects is better than making too many plans of one subject.

Until the meaning of drawing to a pitch is fully understood by the class, the teacher should frequently demonstrate the pro-

cess before the school by making a plan on the blackboard first without these with the help of the class.

As soon as the pupils have had a fair opportunity to learn the process of drawing and have become at least somewhat familiar with the method of finding the horizontal and vertical relations of points, they should have as much exercise in using it as practicable. It is a good plan to assign as the subject any interesting print, specifying the exact length in inches or parts of an inch of the horizontal or vertical relation which is to constitute the pitch of the drawing, always making it greater or less than the same relation in the subject, and specifying four salient points which the pupil is to locate in accordance with the pitch. When the pitch has been established and the four given points have been located, the pupil, as his reward, should be allowed to go on and complete his drawing of the subject to suit himself. By this kind of practice the pupil will soon be able to complete the drawing of quite a figure in fifteen minutes, and if while this work is going on the teacher constitutes himself a friendly helper the pupil will grow to more and more appreciate the value of the process and become more and more expert in its use.

FOURTH TO EIGHTH GRADES.

In these grades it is required as a result of the year's work in drawing that the pupil shall be familiar with the pictures he has had an opportunity to study in the particulars previously mentioned; and, in proportion to his age, and the opportunities he has had for exercise, he shall be familiar with the process of accurate drawing and the principles of design. His drawing book, in quantity and quality, should be an index and a demonstration of his independent exercises of intelligence, skill and culture.

In the work of the grades preceding the fourth, the pupil has been made familiar with the process of drawing and the conditions upon which accuracy in drawing can be secured. He is now to this extent prepared to begin to be made familiar with the principles of design.

This consists in developing a consciousness of the fact that as nothing else is altogether worthy except in the degree that it is excellent, and that as nothing is excellent except in the degree that it has rhythm or movement, balance or repose, and harmony or is altogether consistent; so in drawing, as there are lines, spaces, spots, tones and colors in drawing, no drawing is

excellent or worthy except in the degree that it is rhythmic, balanced and harmonious in lines, space, spot, tone and color, or in all the things that go to constitute it. Familiarizing the pupil with the principles of design and their application to drawing consists in exercising the pupil in making rhythms and balances in each of the things of which drawings are composed. Such exercise begins with the declension of lines, and ends with the application of the principles of design to representation, or the making of representations of things in lines, spaces, spots, tones and colors that are rhythmic, balanced and harmonious.

All lines are either straight, circular or spiral; that is to say, some lines maintain the same direction in every part, some in their different parts take different directions but still maintain the same distance at every part from one fixed point, while some in their different parts take different directions and no two parts are the same distance from any one point, and so there are three kinds or classes of lines. Each of these kinds of lines constitutes a class and each class has as many declensions as it has distinctly different, possible positions. For example, the straight line has four declensions because there are four different positions possible to it: vertical, horizontal, right oblique and left oblique; the circular line has eight declensions because it has two possible different positions for every one that the straight line has; and the spiral line has sixteen declensions because it has four possible positions for every one of the straight lines. (Fig. 7.)

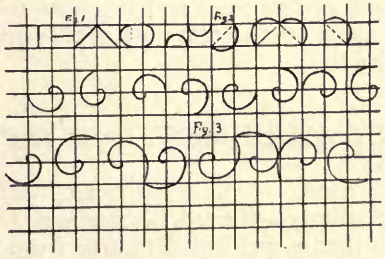

Fig 7.

METHOD OF PRACTICING THE DECLENSION OF LINES.

The teacher prepares a set of quadruled lines five inches apart on the blackboard and on these lines draws the declensions of either of the three kinds of lines and then the pupils practice the same on quadruled paper.

In practicing the declension of spirals a much better idea of them is obtained by varying their method of construction, sometimes making them of semi-circles of different radii, and at other times making them in a line so drawn that for every quarter revolution it increases its distance from the starting point a uniform amount, as a half or a quarter of a square; or increases its distance from the starting point a uniformly increasing distance, as twice as much for each quarter turn. (Fig. 8.)

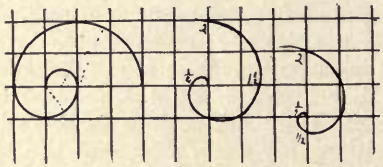

Fig. 8.

As it is impossible to know at this time just what progress will be made in familiarizing the pupils in the different grades with the principles of design or how much condensation will be practicable, further assignments and suggestions concerning this subject will be made to the different grades in the succeeding monthly assignments.

MONTHLY ASSIGNMENT FOR SEPTEMBER.

First Grade.	Study—"The First Step."—Millet.
	Study—"Saved."—Sterling.
	Draw quadruled figures from blackboard.
Second Grade.	Study—"The Sower."—Millet.
	Study—"The Connoisseurs."—Landsers.
	Draw groups of three objects with background screen.

Third Grade.	Study—"A Song Without Words."—Church (Drawing Book).
	Study—"The Piper."—Raphael (Drawing Book.)
	Draw from prints in drawing book and in the Principal's Office according to a given pitch, paying two judgments for each point.
Fourth Grade.	Study—"Feeding the Hens."—Millet (Drawing Book.)
	Study—"Brown Thrasher."—W. H. Gibson (Drawing Book.)
	Draw from prints and objects according to a given pitch.
	Practice the execution of the four declensions of straight lines, the eight declensions of the circle and the sixteen declensions of the spiral.
Fifth Grade.	Study—"Horse Fair."—Rosa Bonheur(Drawing Book).
	Study—"Examples of Composition."—Dow (Drawing Book).
	Draw—See Fourth Grade above.
Sixth Grade.	Study—"The Acropolis."—Athens (Drawing Book).
	Study—"Landscape."—Rembrandt (Drawing Book).
	Draw—See Fourth Grade above.
Seventh Grade.	Study—"St. Marks."—Venice(Drawing Book).
	Study—"The Shepherdess."—Le Rolle(Drawing Book).
	Draw—See Fourth Grade above.
Eighth Grade.	Study—St. Peters.—Rome (Drawing Book).
	Study—"Woman with a Jug."—M. Angelo (Principal's Office.)
	Draw—See Fourth Grade above.

FRANK ABORN,
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